VISIOMER®
The first choice in methacrylate solutions

VISIOMER®

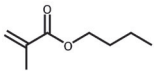
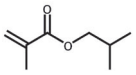
EVONIK
POWER TO CREATE

VISIOMER – MORE THAN 80 YEARS OF EXPERTISE IN METHACRYLATE MONOMERS

In 1901, Dr. Otto Röhm, a pioneer in methacrylate polymer chemistry, paved the way for a longstanding tradition of innovation. With large-scale industrial production of methacrylate monomers and polymers already on the rise in the 1930s, Evonik Röhm developed into a leading supplier for methacrylates globally.

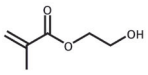
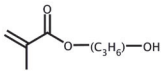
The VISIOMER methacrylate monomer portfolio of Evonik Röhm covers the products MMA, GMAA, n/iso-BMA, Hydroxyesters as well as Methacrylamide.

Basic methacrylates

VISIOMER® product	Chemical name	Formula	Molecular weight g/mol	Boiling point °C/hPa	Glass transition temperature Tg °C	Standard stabilization ppm MEHQ*	Main applications
MMA	Methyl methacrylate	 CAS No. 80-62-6	100.1	100/1013	105	100±10	Coatings, plastics, reactive resins
GMAA	Methacrylic acid	 CAS No. 79-41-4	86.1	161/1013	185	200±20	Coatings, reactive resins, fiber
n-BMA	n-Butyl methacrylate	 CAS No. 97-88-1	142.2	163/1013	20	100±10	Coatings, plastics, reactive resins
i-BMA	i-Butyl methacrylate	 CAS No. 97-86-9	142.2	155/1013	53	100±10	Coatings, reactive resins

Basic methacrylates such as VISIOMER® MMA, n-BMA and i-BMA are used as building blocks in a wide range of applications, such as paints, reactive resins, waterborne coatings, adhesives and many others. These monomers provide very good exterior durability and color stability. VISIOMER® MMA, which has a glass transition temperature of 105 °C, is used wherever hardness and thermo-mechanical stability is needed. VISIOMER® n-BMA and i-BMA, on the other hand, provide flexibility due to softening temperatures of 20 °C and 50 °C. VISIOMER® GMAA is used as building block in applications like paints, dispersions or construction chemicals. It confers specific properties, such as improved freeze-thaw resistance, colloidal stability in emulsion, and enhanced film adhesion.

Hydroxyesters

VISIOMER® product	Chemical name	Formula	Molecular weight g/mol	Boiling point °C/hPa	Glass transition temperature Tg °C	Standard stabilization ppm MEHQ*	Main applications
HEMA 98	2-Hydroxyethyl methacrylate	 CAS No. 868-77-9	130.1	213/1013	55	200±20	Coatings, reactive resins
HPMA 98	Hydroxypropyl methacrylate	 CAS No. 27813-02-1	144.2	209/1013	73	200±20	Coatings, reactive resins

Hydroxyesters are recommended for heat or room temperature cured coatings with permanent marring and solvent resistance, high gloss retention and weatherability. Hydroxyfunctional prepolymers, for example, can be crosslinked via melamine resins, blocked isocyanates (onecomponent systems), or multifunctional isocyanates (two-component systems). Hydroxyesters also serve as adhesion promoters in reactive resins for bonding to metal surfaces.

Methacrylamides

VISIOMER® product	Chemical name	Formula	Molecular weight g/mol	Boiling point °C/hPa	Glass transition temperature Tg °C	Standard stabilization ppm MEHQ*	Applications
MAAmide	Methacrylamide	 CAS No. 79-39-0	85.1	215/1013	250	–	Textile coatings, plastics

Combinations of methacrylamide and acetal-modified methacrylamides are recommended for heat-activated self-crosslinking resins. VISIOMER® MAAmide alone can be used as a polar co-monomer with a high Tg for improving solvent resistance and cohesion.
For specific applications, methacrylamide can be grafted onto natural fibers (silk weighting).

*MEHQ = Hydroquinone monomethyl ether

® = registered trademark

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NAFTA

Evonik Cyro LLC
299 Jefferson Road
Parsippany, NJ 07054-0677
USA

ASIA PACIFIC

Evonik Specialty Chemicals (Shanghai) Co., Ltd.
55 Chundong Road,
Xinzhuang Industrial Park,
Shanghai 201108
China

Central web address
www.methyl-methacrylate-monomers.com

EVONIK INDUSTRIES AG
64293 Darmstadt
Germany
www.evonik.com

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